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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Mi K. Kim 20 Alexander Way Duxbury, MA 02332				
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AFZAL, SARANG				
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10/29/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/068,243

Applicant(s)

SPIESS, BRYAN

Examiner

SARANG AFZALI

Art Unit

3726

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 10/8/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-35 is/are pending in the application.
- 4a) Of the above claim(s) 28 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-27 and 30-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/8/2009 has been entered.

Claim Objections

2. Claims 14-27 are objected to because Applicant has failed to underscore the newly added limitation in claim 14 (i.e. storage bay).
3. Claims 16 and 32 are objected to because of the following informalities:

It seems that Applicant has amended claims 16 & 32 by adding a comma "," between "sulfide" and "polyvinylidene" at the end of lines 3. However, it is not clear as if the Applicant is trying to claim the limitation of "polyvinylidene fluoride and acetyl copolymer" as a single limitation made of a combination of two materials or there are two separate limitations which in that case, the "and" between the "sulfide, and polyvinylidene" should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 14-16, 18-23, 25, 27, 30, 31 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Doolittle et al. (US 2,672,306).

6. As applied to claims 14-16, 19-22 and 34, Doolittle et al. teach an aircraft roller (120, Figs. 15 & 16) comprising:

- (a) a single piece component roller consisting essentially of a cylindrical body (120, Figs. 15 & 16), said body having a length and a diameter; and
- (b) an aperture (to receive spindle 121) extending longitudinally along and through the center of said body, wherein said body consists essentially of a polymer (Nylon, col. 6, lines 10-24).

Regarding the limitations “the roller having a burn rate of less than 4.0 inches per minute” as in claim 14, “impact strength of at least 0.5 (ft. lbs./inch)” as in claim 19, “flexural strength of at least 20 psi” as in claim 20, and “compressibility strength of at least 20 psi and 200 psi” as I claims 21 & 22, it is noted that Doolittle et al. inherently teaches both thermal and physical properties. Doolittle et al. teach that the polymer used in the roller is made from “nylon” (see col. 6, lines 12-13). On page 5, second full paragraph of applicant’s specification, applicant describes that suitable polymers include nylon among with other polymers. Therefore, since both the prior art and the

applicant uses "nylon", it is inherent that Doolittle et al. inherently teaches the claimed thermal properties of the roller/polymer. Applicant has not provided the physical and thermal properties of each of the polymer materials described in the specification at page 5, second full paragraph, therefore, it is understood that all of the described polymer materials on page 5, second full paragraph of applicant's specification meet the claimed "burn rate of less than 4.0 inches per minute, a compressibility strength of at least 200 psi, impact strength of at least 0.5 (ft. lbs.)/inch, and a flexural strength of at least 20 psi", with "nylon" as taught by Doolittle et al. being among the polymer materials. Therefore, Doolittle et al. also inherently teach the limitations of claims 14-16 and 19-22.

Doolittle et al. teach (Figs. 1 & 15) that the nylon aircraft roller is joined to the aircraft's cabin and storage bay by means of cable (69).

Furthermore, regarding the limitation pertaining to the "joined to an aircraft storage bay," a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. As such, the single piece polymer aircraft roller of Doolittle et al. is capable of being joined to an aircraft storage bay.

7. As applied to claim 27, Doolittle et al. teach the invention cited including the roller used in an aircraft conveying system (moving the aircraft, Figs. 15 & 16).

8. As applied to claims 30 and 31, note that the Applicant is claiming a product in a product-by-process claim (a roller made by steps a-c) and as such, the patentability of product does not depend on its method of production. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985) (citing *In re Pilkington*, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969)). If a product in a product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product is made by a different process. *Id.* citing *In re Marosi*, 710 F.2d 799, 803, 218 USPQ 289, 292-93 (Fed. Cir. 1983); *Johnson & Johnson v. W.L. Gore*, 436 F. Supp. 704, 726, 195 USPQ 487, 506 (D. Del. 1977); see also *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974).

The instant invention is not directed to a method of making the roller, but to the roller itself which is a product. The final product is structurally the same as Doolittle et al. as discussed in rejection of claim 14, above.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 17, 19-22 (in alternative), 24, 26, 32, 33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doolittle et al. (US 2,672,306).

11. As applied to claims 17 and 35, Doolittle et al. teach the invention cited including roller body made of a polymer (nylon) attached to aircraft storage bay but do not explicitly teach the claimed acetyl copolymer (claims 17 and 35).

At the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have used the claimed polymer because applicant has not disclosed that the claimed polymers provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally as well with the nylon as taught by Doolittle et al. or acetyl copolymer as claimed, because either type of polymer perform the same function of providing a roller surface that has the desired compressibility and strength. Furthermore, in applicant's specification, at page 5, lines 8-13, there is a listing of different polymers and all are suitable for the rollers. There is no indication that one polymer is better than another.

12. As applied to claims 19-22, Doolittle et al. teach the invention cited including the physical properties of the polymeric material. In alternative, if the applicant does not agree that Doolittle et al. teach the claimed strength properties, then at the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have used the claimed physical properties of "impact strength of at least 0.5 (ft. lbs./inch)", "flexural strength of at least 20 psi", "compressibility strength of at least 20 psi and 200 psi", for the roller body because applicant has not disclosed that the claimed properties provides an advantage, is used for a particular purpose, or

solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally as well with the roller body properties taught by Doolittle et al. or roller body properties as claimed, because either strength properties of the roller body perform the same function of providing a desired roller surface for holding and carrying loads.

Furthermore, since the applicant did not traverse the examiner's official notice that it was well known to a person of ordinary skill in the art, at the time of the invention, to have used the claimed physical properties (strengths), in order to provide a roller having the desired strength to carry desired loads, such assertion is considered as admitted prior art. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the roller body of Doolittle et al. with the physical properties as taught by AAPA, in order to provide a roller with a desired roller surface for holding and carrying loads.

13. As applied to claims 23-26, Doolittle et al. teach the invention cited with the exception of the claimed diameter and length of the roller body.

At the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have used the claimed diameters and lengths for the roller body because applicant has not disclosed that the claimed diameters and lengths provide any advantages, are used for any particular purposes, or solve any stated problems. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally as well with the roller body diameter

and length taught by Doolittle et al. or roller body diameters and lengths as claimed, because either diameter and length of the roller body performs the same function of providing a desired roller surface for holding and carrying loads. Furthermore, in applicant's specification, at page 4, lines 17-21, there is a listing of different diameters and lengths suitable for the rollers. There is no indication that one certain length is better than another.

14. As applied to claims 32-33, note that the Applicant is claiming a product in a product-by-process claim (a roller made of polymer from the claimed group of polymers and acetyl copolymer made by steps a-c of claim 30) and as such, the patentability of product does not depend on its method of production. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985) (citing *In re Pilkington*, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969)). If a product in a product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product is made by a different process. *Id.* citing *In re Marosi*, 710 F.2d 799, 803, 218 USPQ 289, 292-93 (Fed. Cir. 1983); *Johnson & Johnson v. W.L. Gore*, 436 F. Supp. 704, 726, 195 USPQ 487, 506 (D. Del. 1977); see also *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974).

The instant invention is not directed to a method of making the roller, but to the roller itself which is a product. The final product is structurally the same as Doolittle et al. as discussed in rejection of claims 16 & 17, above.

15. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Doolittle et al. (US 2,672,306) in view of Marcus et al. (US 5,217,099).

Doolittle et al. teach the invention cited with the exception of explicitly teaching the roller ends are shaped to provide a shoulder.

Marcus et al. teach a transporting roller used in a conveyor system (Abstract, lines 1-8) wherein a single piece component roller consisting essentially of a cylindrical body (10, Figs. 1 & 2) having a length, a diameter; and an aperture (14) extending longitudinally along and through the center of said body which consists essentially of a polymer (PVC). Marcus et al. teach that the ends of the roller (2) are shaped to provide a shoulder (the machined recessed at the ends, Fig. 2) in order to receive attaching means (sleeve bearing 12) to provide a working rotational fit with a shaft of designated diameter (col. 2, lines 50-57).

Therefore, at the time of the invention, it would have been an obvious to one of ordinary skill in the art, to have provided the roller body of Doolittle et al. with ends shaped to provide a shoulder, as taught by Marcus et al., in order to provide an effective means of end attachments used for receiving the spindle.

Response to Arguments

16. Applicant's arguments with respect to claims 14-27 and 30-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARANG AFZALI whose telephone number is (571) 272-8412. The examiner can normally be reached on 7:00-3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 3726
10/26/2009

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